
SYPHILIS

Clinical Features: An acute and chronic treponemal disease characterized clinically by a primary lesion, a secondary eruption involving skin and mucous membranes, long periods of latency, and late lesions of skin, bone, the central nervous system, and cardiovascular system.

Causative Agent: *Treponema pallidum*, a gram-negative bacterium.

Mode of Transmission: Syphilis is transmitted person to person through sexual contact with the exception of congenital syphilis, when the infant acquires the infection by transplacental transmission of *T. pallidum*. Transmission by sexual contact requires exposure to infectious moist mucosal or cutaneous lesions.

Incubation Period: May range from 10 days to 3 months (usually 3 weeks).

Period of Communicability: Individuals are usually only infectious during periods when they have primary or secondary mucosal or cutaneous lesions. Individuals are not commonly infectious beyond the first year of infection.

Public Health Significance: Many STDs may be prevented through sexual abstinence or through correct, consistent use of condoms. Syphilis is associated with an increased risk of acquiring HIV.

Reportable Disease in Kansas Since: 1950

Clinical Criteria:

PRIMARY SYPHILIS:

- A stage of infection characterized by one or more chancres (ulcers); chancres might differ considerably in clinical appearance.

SECONDARY SYPHILIS:

- A stage of infection characterized by localized or diffuse mucocutaneous lesions, often with generalized lymphadenopathy. The primary chancre may still be present.

LATENT SYPHILIS:

- A stage of infection in which organisms persist in the body of the infected person without causing symptoms or signs. Latent syphilis is subdivided into early, late, and unknown categories based on the duration of infection.

Laboratory Criteria for Surveillance Purposes:

PRIMARY SYPHILIS:

- Demonstration of *T. pallidum* in clinical specimens by darkfield microscopy, direct fluorescent antibody (DFA-TP), or equivalent methods.

SECONDARY SYPHILIS:

- Demonstration of *T. pallidum* in clinical specimens by darkfield microscopy, DFA-TP, or equivalent methods

Surveillance Case Definitions:

PRIMARY SYPHILIS:

- *Probable case:* a clinically compatible case with one or more ulcers (chancres) consistent with primary syphilis and a reactive serologic test (nontreponemal: VDRL or RPR; or treponemal: FTA-ABS or MHA-TP).
- *Confirmed case:* a clinically compatible case that is laboratory confirmed

SECONDARY SYPHILIS:

- *Probable case:* a clinically compatible case with a nontreponemal (VDRL or RPR) titer greater than or equal to 4.
- *Confirmed case:* a clinically compatible case that is laboratory confirmed.

LATENT SYPHILIS:

- *Probable case:* No clinical signs or symptoms of syphilis and the presence of one of the following:
 - No past history of syphilis and reactive nontreponemal test (RPR, VDRL) and a reactive treponemal test (MHATP,FTA).
 - A past history of syphilis therapy and a current nontreponemal test titer demonstrating fourfold or greater increase from the last nontreponemal test titer.

Epidemiology and Trends

2005 Kansas Count (All Stages): 88

	Rate per 100,000	95% CI
Kansas Rate	3.2	(2.5 - 3.8)
U.S. Rate (2004)	11.5	NA

Kansas reported the same number of cases (37 cases) in calendar year (CY) 2005 as in CY2004. In CY2005, an outbreak that had begun among MSM (men who have sex with men) who frequent social/sexual networks out of the state, particularly in Kansas City, MO, continued throughout the year. The outbreak accounted for 22 of 37 total early syphilis cases reported in Kansas.

During CY2005, 19 (51%) of 37 early syphilis cases reported in Kansas were diagnosed as primary or secondary syphilis. This represents a five case (14%) decrease compared to CY2004. Seventeen of the nineteen primary and secondary (P&S) cases were diagnosed in MSM. Although MSM early syphilis cases in CY2005 were distributed across five different counties (Wyandotte, Johnson, Douglas, Leavenworth and Shawnee), all 22 cases associated with the outbreak lived within 60 miles of Kansas City, MO and named partners at sexual venues (such as bookstores) in the greater Kansas City area. Wyandotte and Johnson Counties reported 11 and 7 P&S syphilis cases respectively for CY2005. The only other P&S case was reported in Leavenworth County. A total of 18 cases of early latent (EL) syphilis were reported in CY2005; which represents a five case increase compared to CY2004. The case rate for all early syphilis in CY2005 was 1.4/100,000 and for P&S syphilis was 0.7/100,000. Thirty percent (11) of the early syphilis cases were diagnosed through public providers. Within the MSM outbreak, individuals typically are urban, white and affluent. They are seeking diagnosis and treatment at their private provider's office.

In CY2005, the Central Office received reports of 989 reactive serologies from 79 different reporting sources. Seventy-one percent (701 reports) of these reactive serologies were either administrative or record search closed and 29 percent (288 reports) were sent to the field for further evaluation. Of the 288 serologies sent to DIS for evaluation, 37 were closed as new early syphilis cases and 51 were closed as late latent syphilis cases.

During CY2005, 22 percent (8 cases) of the early syphilis cases were reported in the 45-54 age group while 19 percent (7 cases) were reported in the 40-44 age group. Fourteen (5 cases) percent were in each the 30-34 and 35-39 age groups. There were four (11%) cases in each of the 20-24 and 25-29 age groups. There was one case each in the 15-19 and 55 and over age groups.

Whites accounted for 51 percent (19 cases) of the early syphilis cases in CY2005. African-Americans accounted for 41 percent (15 cases) of the reported early syphilis cases in Kansas. Hawaiian/Pacific Islanders accounted for one case. Hispanics, with no race elicited, accounted for the remaining five percent (2 cases) of the reported early syphilis cases. African-Americans had a case rate of 8.7/100,000 in CY2005; while Whites had a case rate of 0.8/100,000.

The male to female ratio of the 37 early syphilis cases in Kansas for CY2005 was 1:0.3 (28:9). The ratio is weighted heavily towards males due to the high percentage (59%) of cases diagnosed in MSM.

There were no congenital syphilis cases reported in Kansas in CY2005.